

In the claims: The claims are as follows.

1. (Currently amended) A method for registering a UE user equipment terminal with an IMS multimedia network, so as to allow the UE user equipment terminal to access, over a digital communication system, an IM a multimedia network service to which the UE user equipment terminal is subscribed, the method including comprising:

a step in which an S-CSCF a serving call session control function of the IMS multimedia network sends sending an AV authentication vector request message to an HSSa home subscriber server, and

the method characterized in that it includes a step in which in response the home subscriber server responding to the AV request message, the HSS provides by providing in a AVan authentication vector request response message a field indicating a list of services to which the UE user equipment terminal is subscribed along with either information that allows establishing SAs security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service.

2. (Currently amended) The method as in claim 1, further characterized in that wherein in responding to the AV authentication vector request response message, the serving call session control function S-CSCF of the IMS multimedia network adds the information included in the AV authentication vector request response message to an authorization challenge message and forwards it to an interrogating call session control function I-CSCF of the IMS multimedia network.

3. (Currently amended) The method as in claim 2, further

~~characterized in that wherein~~ when the interrogating call session control function-I-CSCF receives the authorization challenge message, it forwards ~~it~~ the message as a forwarded authorization challenge message to a proxy call session control function P-CSCF of the ~~IMS~~ multimedia network, which parses the forwarded authorization challenge message, generates ~~SPD~~ security policy database entries and corresponding ~~SA~~ security associations for both the proxy call session control function P-CSCF and ~~UE~~ the user equipment terminal, inserts its ~~SPD~~ security policy database entries in its ~~SPD~~ security policy database and corresponding ~~SA~~ security associations into its ~~SA~~ security association databaseDB, and provides in an updated authorization challenge message for the ~~UE~~ user equipment terminal the ~~SPD~~ security policy database entries and corresponding ~~SA~~ security associations.

4. (Currently amended) The method as in claim 3, ~~further characterized in that wherein~~ after receiving the updated authorization challenge message, the ~~UE~~ user equipment terminal inserts the ~~SPD~~ security policy database entries into its ~~SPD~~ security policy database and inserts the corresponding ~~SA~~ security associations into its ~~SA~~ security association databaseDB.

5. (Currently amended) The method as in claim 4, ~~further characterized in that further comprising keeping a register is kept~~ for all services to allocate numbers used to derive keys for each service or part of a service.

6. (Currently amended) The method as in claim 5, ~~further characterized in that wherein~~ the keys are an integrity key and a cipher key and are derived by applying a mapping to an argument including the number allocated to the respective service or part

of a service by the register being kept.

7. (Currently amended) A method for registering a UE user equipment terminal with an IMS multimedia network so as to allow the UE user equipment terminal to access, over a digital communication system, an IM-a multimedia network service to which the UE user equipment terminal is subscribed, the method ~~including a step in which~~ comprising:

a proxy call session control function-P-CSCF of the-IMS multimedia network ~~communicates-communicating to the-UE user equipment terminal~~ an authorization challenge message, ~~characterized in that wherein~~ the authorization challenge message includes at least one SPD security policy database entry and a corresponding SA security association derived by the proxy call session control function-P-CSCF from information provided to the proxy call session control function-P-CSCF indicating services to which the UE user equipment terminal is subscribed along with either information that allows establishing SA security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service, and

the-UE user equipment terminal ~~inserts-inserting the~~ at least one SPD security policy database entry into its SPD security policy database and the corresponding SA security association into its SA security association database, so that for a predetermined time any traffic between the UE user equipment terminal and the P-CSCF proxy call session control function is secure for the services to which the UE user equipment terminal is subscribed.

8. (Currently amended) The method as in claim 7, further ~~characterized in that~~ comprising keeping a register is kept for

all services to allocate numbers used to derive keys for each service or part of a service.

9. (Currently amended) The method as in claim 8, ~~further characterized in that wherein~~ the keys are an integrity key and a cipher key and are derived by applying a mapping to an argument including the number allocated to the respective service or part of a service by the register being kept.

10. (Currently amended) A-~~UE~~ user equipment terminal, comprising:

means, responsive to ~~for receiving an~~ authorization challenge message from a proxy call session control function-P-CSCF of an IMSa multimedia network, wherein the authorization challenge message includes at least one SPD security policy database entry and a corresponding SA security association derived by the proxy call session control function-P-CSCF from information provided to the proxy call session control function P-CSCF indicating services to which the UE user equipment terminal is subscribed along with either information that allows establishing SA security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service, ~~and means~~ for inserting the at least one SPD security policy database entry into its SPD security policy database, and

means, also responsive to the authorization challenge message, for inserting the corresponding SA security association into its SA security association databaseDB, ~~so that for a predetermined time any traffic between the UE and the P-CSCF is secure for the services to which the UE is subscribed.~~

11. (Currently amended) A ~~digital communication system comprising an IMS~~ multimedia network ~~having comprising an S-CSCF a~~

serving call session control function and ~~an HSSa~~ home subscriber server, wherein the serving call session control function ~~S-CSCF~~ includes means for sending an ~~AV~~ authentication vector request message to the ~~HSS~~ home subscriber server, and the ~~HSS~~ home subscriber server includes means for providing, in response to the ~~AV~~ authentication vector request message, a ~~AVan~~ authentication vector request response message including a field indicating a list of services to which a ~~UE~~ user equipment terminal is subscribed along with either information that allows establishing ~~SA~~ security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service.

12. (New) A user equipment terminal, comprising:

a first application program interface, responsive to an authorization challenge message from a proxy call session control function of a multimedia network, wherein the authorization challenge message includes at least one security policy database entry and a corresponding security association derived by the proxy call session control function from information provided to the proxy call session control function indicating services to which the user equipment terminal is subscribed along with either information that allows establishing security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service, for inserting the at least one security policy database entry into its security policy database, and

a second application program interface, also responsive to the authorization challenge message, for inserting the corresponding security association into its security association database.

13. (New) A multimedia network, comprising a serving call session control function and a home subscriber server, wherein the serving call session control function is configured to send an authentication vector request message to the home subscriber server, and the home subscriber server is configured to provide to the call session control function, in response to the authentication vector request message, an authentication vector request response message including a field indicating a list of services to which a user equipment terminal is subscribed along with either information that allows establishing security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service.

14. (New) The multimedia network as in claim 13, further comprising an interrogating call session control function, and wherein in response to the authentication vector request response message, the serving call session control function is configured to add the information included in the authentication vector request response message to an authorization challenge message and to forward it to the interrogating call session control function.

15. (New) The multimedia network as in claim 14, further comprising a proxy call session control function, and wherein the interrogating call session control function is configured so that in response to the authorization challenge message, it forwards the message as a forwarded authorization challenge message to the proxy call session control function, which is configured to then parse the forwarded authorization challenge message, generate security policy database entries and corresponding security associations for both the proxy call session control function and the user equipment terminal, insert its security policy database

entries in its security policy database and corresponding security associations into its security association database, and provide in an updated authorization challenge message for the user equipment terminal the security policy database entries and corresponding security associations.

16. (New) The multimedia network as in claim 13, further comprising a register for all services to allocate numbers used to derive keys for each service or part of a service.

17. (New) The multimedia network as in claim 16, wherein the keys are an integrity key and a cipher key both derived from a mapping to an argument including the number allocated to the respective service or part of a service included in the register.